

Feb. 18, 1958

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2,823,490

CONTAINER CONVERTIBLE TO A TOY

Filed June 29, 1955

Fig. 1

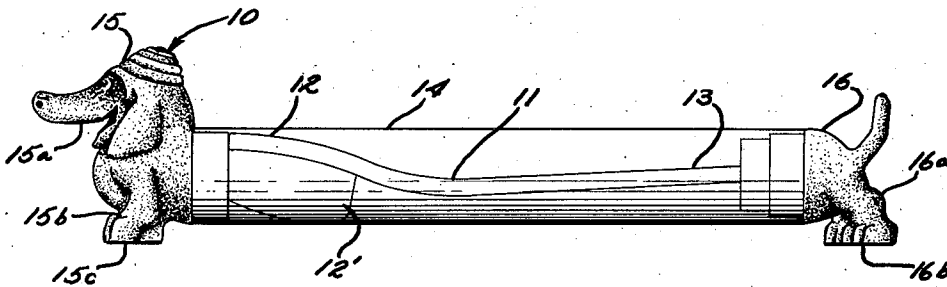


Fig. 2

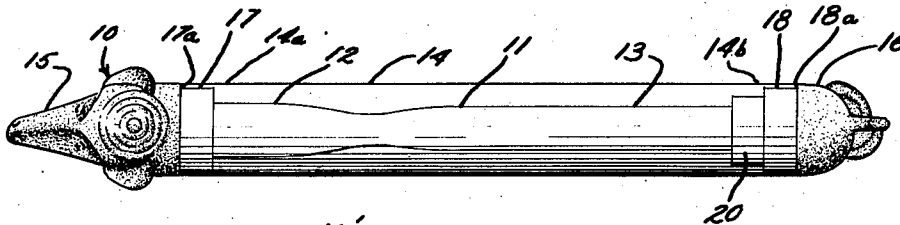


Fig. 3

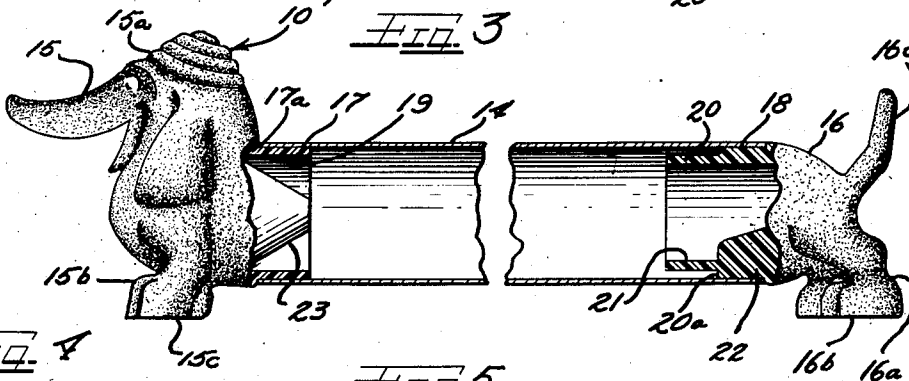


Fig. 4

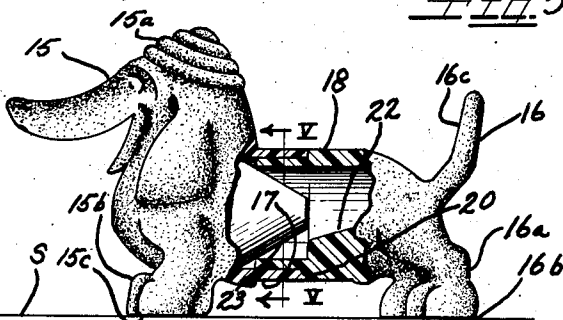
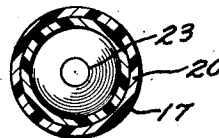


Fig. 5



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CONTAINER CONVERTIBLE TO A TOY

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Application June 29, 1955, Serial No. 518,820

3 Claims. (Cl. 46—11)

The instant invention relates generally to packages and to containers adapted for use in display packages, and more particularly, to a container that is readily and easily assembled and disassembled and contains a transparent member for displaying an article to be contained thereby in a package assembly.

Although the instant invention is adapted for use in a number of arts, it may be used with particular advantage in the packaging of individual articles in highly competitive fields, such as in the packaging of toothbrushes or similar articles. For sanitary reasons as well as customer appeal there has developed a very great demand for toothbrushes packaged individually in packages wherein the toothbrush or similar article may be seen by the customer. Such packages must be reasonably sturdy and attractive to have the necessary customer appeal. Also, the packages are preferably assembled and disassembled with relative ease, not only to minimize production costs, but also to simplify the opening of the package for the customer. Usually display structures or auxiliary equipment are also required for the package. The package must also contain a suitable portion of transparent material so that the article therein may be displayed to the customer, and additional equipment or packaging expense may be involved in mounting the article in the package in a suitably presentable manner.

All of these features add to the cost of the package; but they have been found to be substantially a necessity in order to present a package which will meet normal competition. The instant invention provides a uniquely simplified structure which not only fulfills all of the above mentioned requirements, but also presents even a greater attractive feature in the appearance of end members or plugs for the package, either assembled on the package or separately assembled.

In essence, the instant container comprises a central transparent hollow elongated member which receives the article to be packaged and a pair of plug members which fit snugly into opposite ends of the hollow member to complete the package. The plug members have the appearance and shape of the front and rear end, respectively, of a toy, such as a dog, train, boat or the like. Each of the plug members has feet or comparable supporting projections (e. g. wheels) which cooperate to mount the package and the central transparent portion thereof in a fixed "display" position so that additional display mounting structure is not necessary. Each of the plug members also has centering or guide means mounted thereon and cooperating with the ends of the elongated hollow member to fix the position of the article therein in a suitable "display" position. In addition, the two plug members may be assembled separately not only to define a somewhat altered shape of the "toy" formed by the package, but also to keep the mating plug members in assembly so one will not be lost during assembly and disassembly operations.

It is thus an important object of the instant invention to provide an improved container and an improved pack-

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age formed of the container with an article suitably mounted therein.

It is an additional important object of the instant invention to provide an improved container and an improved package formed of the container with an article suitably mounted therein comprising container end plugs which support the package in display position.

It is a further object of the instant invention to provide an improved container that is sturdy and attractive in appearance.

It is another object of the instant invention to provide an improved package which is self-supporting, easily assembled and disassembled, and equipped with centering means for displaying the article, and also has an additional utility because it may be used as a toy.

Other and further objects, features and advantages of the instant invention will become apparent to those skilled in the art from the following detailed disclosure thereof and the drawings attached hereto and made a part hereof.

On the drawings:

Figure 1 is a side elevational view of a package embodying the instant invention;

Figure 2 is a top plan view of the package shown in Figure 1;

Figure 3 is an enlarged sectional elevational view of the container employed in the package of Figures 1 and 2, with parts broken away;

Figure 4 is a side elevational view, with parts broken away and parts shown in section, of the plug members of the container in separate assembly; and

Figure 5 is a sectional view taken substantially along the line V—V of Figure 4.

As shown on the drawings:

In Figures 1 and 2, there is shown a package 10 comprising an elongated article 11 having a head end portion 12 and a tail end portion 13, in the form of a toothbrush having bristles 12' mounted at the head end 12 and an elongated handle defining the tail end portion 13. Other articles may also be retained in the instant package 10 such as fingernail files, pencils, pens, etc. and it is not absolutely necessary that these articles have such a substantially elongated shape as here indicated. In fact, other articles that are not elongated in shape may be packaged in slightly different shaped containers in accordance generally with the teachings of the instant invention, although the invention is preferred for use with elongated articles.

The package 10 also comprises a container (indicated as 10' in Figure 3 wherein the article 11 is not shown) made up of an elongated hollow transparent tube or envelope 14 open at both ends and adapted to axially receive the article 11 therein. The elongated envelope 14 is preferably tubular in shape, but it may have other (substantially uniform) cross-sectional shapes such as square or triangular shapes which would still permit the hollow envelope 14 to receive the article 11. The envelope 14 is, however, preferably tubular in shape because this simplifies the shaping of the plug portions inserted therein (which will be described hereinafter) and it also simplifies the formation of the envelope itself, which is preferably made of a transparent material that is substantially rigid to make a snug fitting with the plug members to be described but may have a certain amount of flexibility. Rigid transparent synthetic resins such as the polyacrylates, polystyrene, or the like may be used to form the tube 14. Preferably, the tube 14 is made of cellulose acetate, cellulose acetate-butyrate, or comparable transparent cellulose ester which is slightly flexible to afford easy handling and impact resistance desired in a package of this type, but which is suitably rigid to make a snug fit with the plugs 15 and 16.

The pair of plugs 15 and 16 each have a projection 17

and 18, respectively, thereon releasably and snugly fitting into an end 14a and 14b, respectively, of the envelope 14 to close the same. At the first plug or head plug 15, the first projection 17 thereon releasably and snugly fits within the end 14a of the tube 14, with the extremity of the tube end 14a fitting flush against a shoulder 17a at the base of the projection 17. The first projection 17 extends outwardly from the head plug 15 in generally axial alignment with the tube 14 and axially opposed to the corresponding projection 18 on the tail plug 16. A first recess 19 preferably having a generally annular cross-section smaller in size than the overall cross-section of the first projection 17 is formed in the outwardly extending face of the projection 17 and generally concentrically aligned therewith.

The second plug or tail plug 16 has a second projection 18 thereon releasably and snugly fitting within the other tube end 14b, with the tube end 14b fitting flush against a shoulder 18a at the base of the projection 18. The annular shoulders 17a and 18a on the plugs 15 and 16, respectively, fix the relative position of the elements 14, 15 and 16 in the assembled package 10. The second projection 18 on the tail plug 16 has a third projection 20, of telescopic shape, extending outwardly from the second projection 18 and being of smaller cross-section than the second projection 18, and defining therewith an annular shoulder 20a at the base of the third projection 20. The second projection 18 and the third projection 20 are axially aligned and generally concentric and the third projection 20 is adapted to fit snugly and releasably into the first recess 19 of the head plug 15, as shown in Figure 4, whenever the plugs 15 and 16 are momentarily separated from the tube 14. This affords the advantage of coupling means between the two plugs 15 and 16 so that such plugs will remain in pairs, in mating engagement, before and after assembly and one of such pairs will not be lost. In addition, the assembled plugs 15 and 16 provide a toy in and of themselves. Because of the snug fit between the first recess and the third projection 20, the hollow space within the toy formed by the plugs 15 and 16 alone will permit this toy to float on water (which in the case of the plug members shaped as the front and rear portion of a boat will have particular use).

The plug members 15 and 16 are preferably made of a suitable lightweight synthetic resin material that has a certain amount of resilience or flexibility so as to assure a snug fit with the tube 14 and with the plug members themselves. Preferably a natural or synthetic elastomer is used having a sufficient amount of rigidity to be self-supporting, but also having an adequate amount of elastomeric properties to permit the snug fits hereinbefore described. Polyethylene is preferred for use in the practice of the instant invention, because it can be molded easily in the rather complicated shapes of the instant plugs 15 and 16 and it has a very smooth waxy texture and resilience or elastomeric properties to the extent desired.

As will also be seen, the head plug 15 is shaped generally to define the fore part of a dog defining the head portion 15a and also the fore feet 15b, which feet or mounting portion 15b presents a flat base 15c. The rear plug 16 has the general shape of the rear part of a dog with rear feet portions 16a extending therefrom in generally parallel alignment to the fore feet portions 15b and also defining a flat bottom supporting surface 16b. The feet portions 15b and 16a thus are adapted to support the entire package 10 in generally horizontal alignment or in alignment generally parallel with a surface S (Figure 4) on which the package 10 is mounted. The head and fore feet portions 15a and 15b, respectively, in the head plug 15 afford handle means for manually grasping the head plug 15 during assembly and disassembly; and in like manner, the tail portion 16c and the feet

portions 16a of the tail plug afford manually graspable means.

It will also be noted that in the tail plug 16 the third projection 20 (and also the second projection 18) have another recess 21 therein and generally concentric thereto. The recess 21 opens into the outer face of the projection 20 and is here shown in enlarged form. Actually, the recess 21 can be made, and preferably is made, to fit substantially the size of the tail end portion 13 of the article 11 so as to receive and position or center the article tail end 13 when the package 10 is assembled. This can also be done by tapering the bottom of the recess 21 or, if it is desired to save material, merely by providing a thin upwardly (or radially) extending fin 22 (shown in full view in Figures 3 and 4) in the lower side of the recess 21 to engage the end of the brush handle 13 and center the same in the tube 14.

Means are also provided in the head plug 15 for co-operation with the recess 21 in the tail plug 16 to effect centering and positioning of the article 11. And such means are in the form of a fourth projection 23 which is positioned centrally within the first recess 19 and is generally concentric with the recess 19 and the projection 17 on the plug 15. The projection 23 extends outwardly from the plug 15 to be substantially flush with the outer edge of the projection 17, so as to cooperate with the head portion 12 of the brush 11 to prevent the head portion 12 from being hidden in the first recess 19. The plug projection 23 thus is urged against the article head 12 in the package 10 so as to exclude the head 12 from the first recess 19 and the fourth projection thus cooperates with the second recess 21 to centrally mount the article 11 in the package 10.

It will be understood that modifications and variations may be effected without departing from the scope of the novel concepts of the present invention.

I claim as my invention:

1. A package comprising an elongated article having a head end portion and a tail end portion, an elongated hollow transparent tube open at both ends axially receiving the article to retain the same therein, a first plug having a first projection thereon releasably and snugly fitting within one tube end and a first recess in said first projection, and a second plug having a second projection thereon releasably and snugly fitting within the other tube end and a third projection extending outwardly from said second projection and being of smaller cross-section to snugly fit into said first recess, both said plugs having feet portions extending in parallel alignment therefrom to support said package on a surface with the tube in generally parallel alignment with the surface, the head end of said article extending into said first recess in said first projection and the tail end of said article being maintained in fully exposed position within the transparent tube by said third projection.

2. A container comprising an elongated hollow transparent tube open at both ends adapted to receive and display an article, a first plug having a first projection thereon releasably and snugly fitting within one tube end and a first recess in said first projection, and a second plug having a second projection thereon releasably and snugly fitting within the other tube end and a third projection extending outwardly from said second projection and being of smaller cross-section to snugly fit into said first recess, so that said first recess and said third projection may position an article within the hollow tube when said plugs are mounted thereon and said first recess and said third projection may be fit together to assemble said plugs as a toy in the absence of said tube.

3. A container comprising an elongated hollow transparent tube open at both ends adapted to receive and display an article, a first plug having a first projection thereon releasably and snugly fitting within one tube end and a first recess in said first projection, and a second plug having a second projection thereon releasably and snugly

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fitting within the other tube end and a third projection extending outwardly from said second projection and being of smaller cross-section to snugly fit into said first recess, both said plugs having feet portions extending in parallel alignment therefrom to support said pack- 5
age on a surface with the tube in generally parallel alignment with the surface, so that said first recess and said third projection may position an article within the hollow tube when said plugs are mounted thereon and said first recess and said third projection may be fit to- 10
gether to assemble said plugs as a toy in the absence of said tube.

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References Cited in the file of this patent

UNITED STATES PATENTS

437,015	Byrnes -----	Sept. 23, 1890
1,110,685	Hayes -----	Sept. 15, 1914
1,223,507	Mathias -----	Apr. 24, 1917
1,253,846	Lyhne -----	Jan. 15, 1918
2,096,872	Baker -----	Oct. 26, 1937
2,398,011	Kaplan -----	Apr. 9, 1946